

SOUTHEASTERN DISTRICT MAINLAND (ALASKA PENINSULA AREA)
SALMON MANAGEMENT PLAN, 1998

By

Rodney D. Campbell
and
Mark J. Witteveen

Regional Information Report¹ No. 4K98-16

Alaska Department of Fish and Game
Commercial Fisheries Management and Development Division
211 Mission Road
Kodiak, Alaska

April 1998

¹The Regional Information Report Series was established in 1987 to provide an information access system for all unpublished division reports. These reports frequently serve diverse ad hoc informational purposes or archive basic uninterpreted data. To accommodate timely reporting of recently collected information, reports in this series undergo only limited internal review and may contain preliminary data; this information may be subsequently finalized and published in the formal literature. Consequently, these reports should not be cited without prior approval of the author or the Commercial Fisheries Management and Development Division.

TABLE OF CONTENTS

	<u>Page</u>
LIST OF TABLES	i
LIST OF FIGURES	i
LIST OF APPENDICES	i
INTRODUCTION	1
DESCRIPTION OF AREA.....	1
MANAGEMENT PLAN	2
1998 Management Plan	2
Chignik Sockeye Salmon Forecast and SEDM Allocation.....	3
Harvest Scenarios.....	3
Harvest Goals	4
Fishing Periods	4
Legal Gear Types	4
LOCAL STOCKS	4
Northwest Stepovak Section	5
Stepovak Flats Section	5
AIRCRAFT	5
LITERATURE CITED	6
TABLES.....	7
FIGURES.....	10
APPENDIX.....	14

LIST OF TABLES

<u>Table</u>	<u>Page</u>
1. Southeastern District Mainland fishery regulatory history, 1970-98.	7
2. Southeastern District Mainland, effort and assignment of sockeye salmon harvests June 1- July 25, 1985-97	8
3. Sockeye salmon adult escapement requirements for Orzinski Lake.....	9

LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
1. Map of the Alaska Peninsula Management Area with the Southeastern District Mainland area defined by darkened area	10
2. Map of the Southeastern District Mainland fishery from Kupreanof Point to McGinty Point with the salmon sections defined	11
3. Map of the Northwest Stepovak Section, with Dorenoi Bay closed waters, through July 25, defined by darkened area	12
4. Map of Kupreanof Point area with closed waters defined.....	13

LIST OF APPENDICES

<u>Appendix</u>	<u>Page</u>
A. Southeastern District Mainland Salmon Management Plan	15
B. Chignik Management Area Preliminary Sockeye Forecast	17
C. Application of Fishery Management Plans	19

INTRODUCTION

This document is intended to provide commercial fishers and processors with information the Alaska Department of Fish and Game (ADF&G) will use to manage the Southeastern District Mainland (SEDM) fishery.

Inseason announcements will be broadcast over A.M. radio station KSDP in Sand Point, VHF channels 6 & 73, and on Single Side Band (SSB) radio frequencies 3.230 and 4.125 MHz. Information may also be obtained over the ADF&G record-a-phone in Sand Point at 383-2334 (383-ADFG).

As required by 5 AAC 39.130 (a)(3) buyers must report daily their salmon purchases by species, (in both numbers of fish and pounds) and number of deliveries by gear to the ADF&G office in Sand Point. Processors must provide the department with catch reports as soon as possible on the morning after a fishing period ends. Contact can be made over VHF 6 & 73, and SSB radio 3.230 or 4.125 MHz. Buyers may also phone or fax their information to the ADF&G office in Sand Point.

Sand Point

Telephone: 383-2066

Fax: 383-2606

Fish tickets must be mailed to the ADF&G offices in Sand Point (listed below) within seven days of the purchase date.

Alaska Dept. of Fish & Game
P.O. Box 129
Sand Point, AK 99661

DESCRIPTION OF AREA

The Southeastern District Mainland (SEDM) fishery is located on the south side of the Alaska Peninsula (Figure 1). Included in this fishery are the Beaver Bay, Balboa Bay, Southwest Stepovak, Northwest Stepovak, East Stepovak, and Stepovak Flats Sections (Figure 2). Under a management plan established by the Alaska Board of Fisheries (BOF) in 1991, and most recently revised in 1998 (Table 1; Appendix A), the fishery is allocated 6.0% of the total Chignik bound sockeye salmon harvest through July 25. After July 25, the SEDM is managed for local stocks. The present plan to regulate the SEDM fishery is based on the Cape Igvak Salmon Management Plan, in the Kodiak Management Area (KMA), which the BOF instituted in 1978.

MANAGEMENT PLAN

1998 Management Plan

The SEDM fishery will be managed according to the SEDM Management Plan as adopted by the BOF in 1991 and most recently revised during the January 1998 BOF meeting (Appendix A).

Under the current SEDM management plan:

1. The area to be managed for local Orzinski Lake sockeye salmon includes the entire Northwest Stepovak Section (Figure 3). Prior to July 1, the entire SEDM will be managed on an allocation based on the strength of the Chignik sockeye salmon runs 5 AAC 09.360(a)(1) and (b)-(h) and 80% of the sockeye caught will be considered Chignik bound salmon. However, beginning July 1, all sockeye salmon caught in the Northwest Stepovak Section will be considered 100% local fish and not counted toward the Chignik allocation. From July 1 through July 25, the Northwest Stepovak Section, outside Orzinski Bay, may open to commercial salmon fishing if the Orzinski Lake and Chignik Lake sockeye salmon escapements are being met, and the Chignik Management Area (CMA) sockeye salmon harvest is expected to be at least 300,000 fish through July 8, and 600,000 fish through July 25. The BOF mandated fishing schedule for the Northwest Stepovak Section, excluding Orzinski Bay, from July 1 through July 25 will not exceed four days during a seven day period. The maximum number of consecutive fishing days is two.

Beginning July 1, Orzinski Bay will be managed entirely on local stocks. The Stepovak Flats Section will continue to be managed for chum salmon returning to Stepovak Flats streams throughout the entire season, however, 80% of the sockeye salmon caught in this section through July 25 will considered Chignik bound fish (Figure 2).

2. The percentage of sockeye salmon allocated to the SEDM fishery by the BOF is 6% of the total Chignik bound sockeye harvest through July 25. The BOF established this percentage during the January 1996 meeting in an attempt to maintain traditional harvest levels of Chignik bound sockeye in the SEDM fishery and to compensate for the increased area managed for local Orzinski Lake sockeye salmon.
3. The BOF established a closed waters area encompassing Kupreanof Point (55°33.98' N. lat., 159°35.88' W. long.) 5 AAC 09.350 (38) from July 6 through August 31 (Figure 4). The department will extend the Kupreanof Point closed waters area through October 31, by emergency order. The Kupreanof Point closed waters extension will remain in effect until the department determines the coho salmon subsistence needs of the residents of Perryville have been satisfied, and the commercial salmon fisheries throughout the Western and Perryville Districts, which are currently closed after August 20 because of subsistence concerns, are reopened during this period.

Chignik Sockeye Salmon Forecast and SEDM Allocation

The forecasted midpoint harvests for the Chignik Management Area (CMA) sockeye runs for 1998 are 500,000 salmon for the early run and 850,000 salmon for the second run (Appendix B). Therefore, if the runs come in as expected and the goals of the management plan are achieved, approximately 81,000 total sockeye should be harvested in the SEDM area through July 25, with 80% or about 64,800 sockeye considered Chignik bound salmon. The 1998 SEDM projected harvest of non local sockeye salmon (80% numbers) through July 25 is below the 1992-95 average harvest of 113,258 salmon, and above the 1996-97 average harvest of 63,601 (Table 2).

The total Chignik sockeye salmon harvest is 100% of those sockeye salmon caught within the CMA, 80% of the sockeye salmon caught in the Cape Igvak Section of the KMA, through July 25, and 80% of the sockeye salmon caught in the SEDM fishery through July 25, excluding 100% of the sockeye salmon caught in the Northwest Stepovak Section from July 1 through July 25.

Harvest Scenarios

Because the harvestable surplus in Chignik is expected to exceed 600,000 sockeye salmon, the SEDM fishery may open when the fishery opens in the CMA. However, based on the 500,000 sockeye salmon early run harvest forecast, the first opening for the SEDM fishery, excluding Orzinski Bay, may not occur until early to mid-July.

If the first run is as weak or weaker than expected, the SEDM fishery, excluding Orzinski Bay, will be curtailed in order to allow a minimum harvest in the CMA of at least 300,000 sockeye salmon through July 8, if that many salmon are surplus to escapement requirements.

From about June 26 through July 9, the strength of the second run of Chignik River sockeye salmon cannot be evaluated. The department may close or restrict commercial salmon fishing in the SEDM during this period until the strength of the second run can be determined (ADF&G *In press*).

After July 8, fishing time in the SEDM fishery, excluding Orzinski Bay, will depend on the strength of the second run as evaluated at Chignik and on the catch of Chignik bound sockeye salmon during the first run at Cape Igvak, Chignik, and the SEDM fisheries. When the second run escapement goals are being met and the second run appears strong enough for a fishery at Chignik, the SEDM may open to commercial salmon fishing if at least 300,000 combined first and second run sockeye salmon have been harvested in the CMA. The department will manage the fishery so that the number of sockeye salmon harvested in the CMA from both runs combined will be at least 600,000 salmon and the harvest in the SEDM will approach as near as possible 6.0% of the total Chignik bound sockeye salmon catch (Appendix C), if that many sockeye salmon are surplus to escapement requirements.

Harvest Goals

The SEDM fishery will be managed according to the plan as stated in the current Alaska Peninsula commercial salmon fishing regulation book (ADF&G *In press*; Appendix A). No attempt will be made to allow equal fishing time with Chignik but rather the goal will be to meet the 6.0% allocation level after the conditions of the management plan have been satisfied through July 25.

An interim management goal of 6.0% at midnight July 10 will also be attempted after the conditions of the management plan have been satisfied. The interim management goal of 6.0% at midnight July 10 is desirable to achieve historical harvest levels between set gillnet and purse seine fishers; purse seine gear is legal in the fishery beginning July 11. To meet the interim and final goals, the percentage may fluctuate above or below 6.0% prior to July 11 and July 25.

Because of the restrictions placed upon the SEDM fishery to protect the Chignik runs, it may not be possible to achieve a 6.0% allocation level, even if escapement goals are met and the minimum catch level of 600,000 sockeye salmon at Chignik is exceeded.

Fishing Periods

The SEDM fishery is regulated independently of other fisheries occurring in the Alaska Peninsula Management Area. The department will attempt to have fishing periods in the Northwest Stepovak and Stepovak Flats Sections concurrent with fishing periods in the remainder of the SEDM area to avoid concentrating fishing gear. As required by the BOF management plan, beginning July 1, the fishing schedule for the Northwest Stepovak Section, excluding Orzinski Bay, will not exceed four days during a seven day period. The maximum number of consecutive fishing days is two.

All fishing periods will be announced by emergency orders. A minimum of 24 hours advance notice will be given prior to the first commercial fishing period of the season. At least 12 hours notice will be given prior to the opening of any other fishing period, unless it extends the current fishing period.

Legal Gear Types

In the SEDM area, set gillnet gear is the only legal gear type allowed through midnight July 10. Beginning July 11, set gillnet, purse seine, and hand purse seine gear types are allowed.

LOCAL STOCKS

For the purposes of this plan, local runs include only those salmon in the waters:

- (1) beginning July 1, in the Northwest Stepovak Section described in 5 AAC 09.200(f); and
- (2) in the Stepovak Flats Section as described in 5 AAC 09.200(f).

Northwest Stepovak Section

Prior to July 1, 80% of the sockeye salmon caught in the entire SEDM are considered Chignik bound fish. Beginning July 1, all sockeye salmon caught in the Northwest Stepovak Section are considered to be 100% Orzinski Lake stock, and 80% of the sockeye salmon caught in the SEDM, outside the Northwest Stepovak Section, through July 25 are considered Chignik bound fish.

A weir was used to count salmon escapements into Orzinski Lake between 1935 and 1941, and from 1990 through 1997 (Campbell et al *In press*). The earliest recorded sockeye salmon escapement through the weir occurred on June 11, 1940 (11 salmon). Sockeye salmon usually enter the lake in late June, and normally by the second week of July 50% of the annual escapement goal has been achieved. By the end of July or the first week of August about 99% of the escapement goal of 20,000 sockeye salmon has occurred.

Based on aerial surveys and weir counts, ADF&G developed sockeye salmon escapement requirements for Orzinski Lake by time periods (Table 3). The Orzinski Lake sockeye escapement goal is 20,000 adult salmon. In 1997, the total estimated sockeye escapement was about 35,000 salmon. The department intends to operate a weir on the Orzinski Lake system in 1998.

If the sockeye salmon escapement goals into Orzinski Lake are not being met, the Northwest Stepovak Section may be closed, until management of the area shifts to pink salmon after July 25.

Stepovak Flats Section

Commercial salmon fishing in the Stepovak Flats Section is managed for chum salmon returning to local Stepovak Flats streams. Through July 25, 80% of the sockeye salmon harvested in this section are considered Chignik bound fish and are included in the 6.0% allocation criteria stated in the SEDM management plan. After July 28, the entire Stepovak Flats Section and the northern portion of the East Stepovak Section, as described in 5 AAC 09.350(23), are closed to commercial salmon fishing to protect schooling chum salmon.

After July 25, the entire SEDM area will be managed on the basis of local stocks (sockeye, coho, chum, and pink salmon).

AIRCRAFT

A PERSON MAY NOT USE OR EMPLOY AN AIRCRAFT TO LOCATE SALMON FOR THE COMMERCIAL TAKING OF SALMON OR TO DIRECT COMMERCIAL FISHING OPERATIONS IN THE ALASKA PENINSULA AREA ONE HOUR BEFORE, DURING, AND ONE HOUR AFTER A COMMERCIAL SALMON FISHING PERIOD.

LITERATURE CITED

- ADF&G (Alaska Department of Fish and Game). *In press*. 1998-2000 Bristol Bay, Alaska Peninsula, Atka-Amlia, and Aleutian Islands Areas commercial fishing regulations, 1998 edition. Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division, Juneau.
- Campbell, R.D., A.R. Shaul, M.J. Witteveen and J.J. Dinnocenzo. *In press*. South Peninsula Annual Salmon Management Report, 1997. Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division, Regional Information Report, Kodiak.

Table 1. Southeastern District Mainland fishery regulatory history, 1970-98.

Year	Management Plan
Pre-1974	Set weekly fishing periods, usually 5 days per week
1974-77	Day for day fishing with Chignik
1978	3 days per week, seine gear prohibited before July 10
1979-84	5 days per week, 60,000 catch ceiling (until Chignik catches 1 million) After 7/10 entire SEDM managed on local stocks.
1985-91	Assures minimum harvest in Chignik of 600,000, restricts fishing in SEDM during overlap period (6/26-7/9), allows 6% (6.2%-1985-87) allocation of total Chignik sockeye harvest through 7/25, permits openings in Stepovak Flats and Northwest Stepovak Sections based on local runs
1992-95	Area managed on local sockeye runs reduced to include only Orzinski Bay (Stepovak Flats Section not effected), increased allocation of Chignik sockeye harvest from 6% to 7%
1996-97	Area managed on local sockeye runs increased to include the Northwest Stepovak Section beginning July 1, reduced allocation of Chignik sockeye harvest from 7% to 6%
1998	Beginning July 1, only Orzinski Bay will be managed entirely on local sockeye run. However, all sockeye salmon caught in the Northwest Stepovak Section beginning July 1 will be considered 100% local fish and not counted toward the 6% allocation. Remainder of SEDM sockeye salmon harvest allocated as 80% Chignik bound fish. Assures minimum harvest of 600,000 sockeye salmon in Chignik.

Table 2. Southeastern District Mainland, effort and assignment of sockeye salmon harvests June 1 - July 25, 1985-97.

Year	Effort				Northwest Stepovak			SEDM minus Northwest Stepovak		SEDM		Total Catch
	Gillnet	Landings	Seine	Landings	Total	(Local)	(Non-local)	(Local)	(Non-local)	(Local)	(Non-local)	
1985	^a	49	367	23	51	16,681	16,681	0	12,855	51,421	29,536	80,957
1986		42	616	18	29	59,025	59,025	0	29,501	118,006	88,526	206,532
1987		53	528	6	9	61,287	61,287	0	36,722	146,886	98,009	244,895
1988		41	300	16	45	57,010	57,010	0	4,830	19,320	61,840	81,160
1989		67	248	25	54	83,618	83,618	0	1,121	4,485	84,739	89,224
1990		46	277	69	131	3,279	3,279	0	32,609	128,599	35,888	164,487
1991		59	747	39	71	98,834	98,834	0	38,179	152,714	137,013	289,727
1992	^b	59	650	6	14	113,428	101,198	12,232	20,403	81,613	121,599	215,444
1993		64	763	53	82	73,747	54,955	18,792	27,436	109,744	82,391	210,927
1994		56	878	0	0	89,522	52,880	36,642	26,427	105,708	79,307	221,657
1995		58	718	26	30	62,598	51,723	10,875	19,357	77,426	71,079	159,381
1996	^c	64	1,164	25	46	137,925	127,645	10,280	29,230	116,921	156,875	284,076
1997	^c	57	1,171	12	23	304,629	304,629	0	0	0	304,629	304,629
Average:												
1985-91		51	440	28	56	54,248	54,248	0	22,260	88,776	76,507	165,283
1992-95		59	702	21	32	84,824	65,189	19,635	23,406	93,623	88,594	201,852
1996-97		61	1,168	19	35	221,277	216,137	5,140	14,615	58,461	230,752	294,353

^a From 1970 through 1991, the Chignik contribution is 80% of the sockeye salmon harvested in Beaver Bay, Balboa Bay, Southwest Stepovak, Stepovak Flats, and East Stepovak Sections.

^b From 1992 through 1995, the Chignik contribution is 80% of the sockeye salmon harvested in the Southeastern District Mainland fishery, except Orzinski Bay where 100% of the sockeye salmon are considered local production.

^c In 1996 and 1997, the Chignik contribution is 80% of the sockeye harvested in Southeastern District Mainland fishery, except beginning July 1, in the Northwest Stepovak Section where 100% of the sockeye salmon are considered local.

Table 3. Sockeye salmon adult escapement requirements for Orzinski Lake.

Time Period	Intra Period Goals	Cumulative Escapement Goal
June 15		0
July 1	2,000	2,000
July 9	3,000	5,000
July 16	5,000	10,000
July 23	5,000	15,000
August 7	5,000	20,000
Season Total		20,000

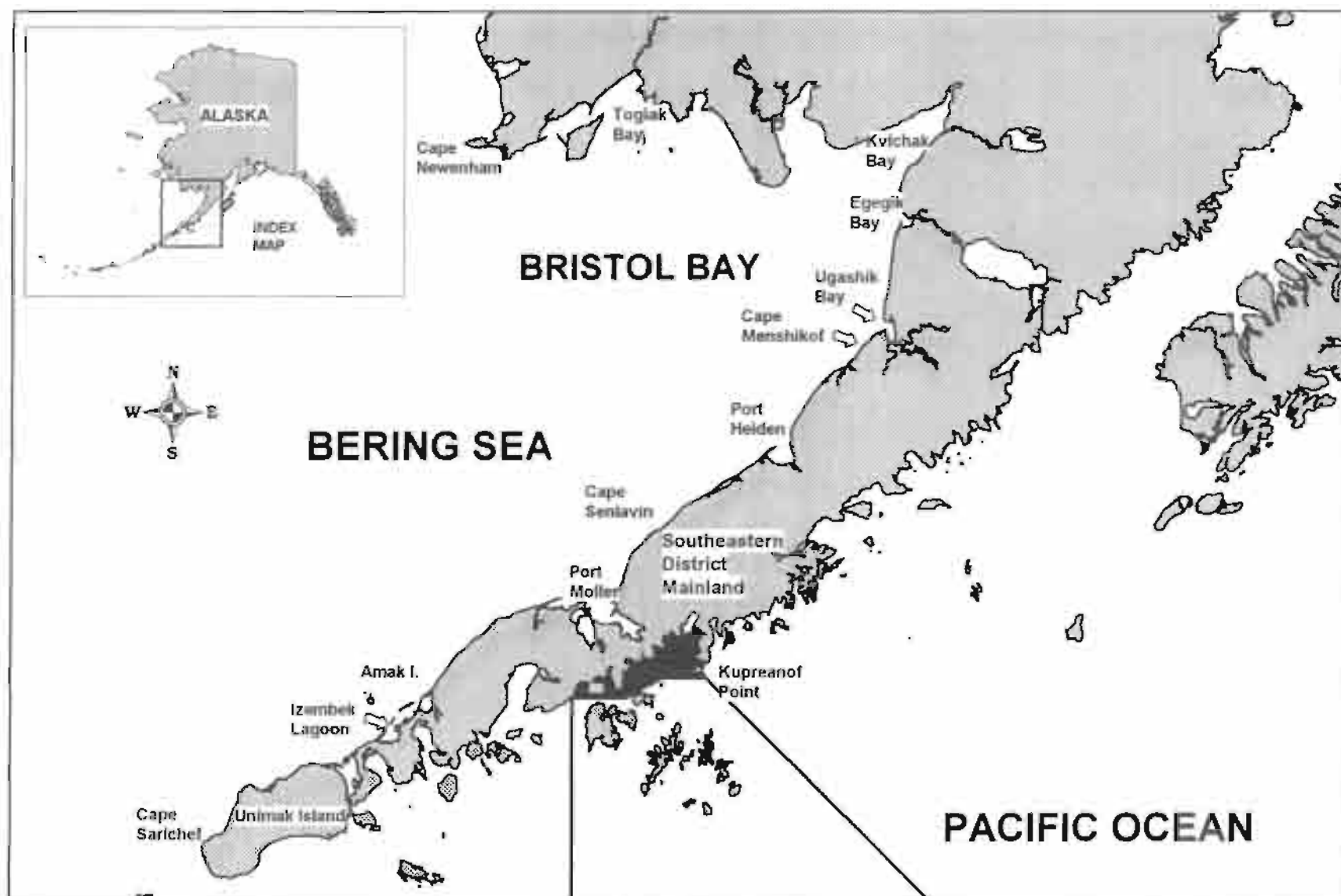


Figure 1. Map of the Alaska Peninsula Management Area with the Southeastern District Mainland area defined by darkened area.

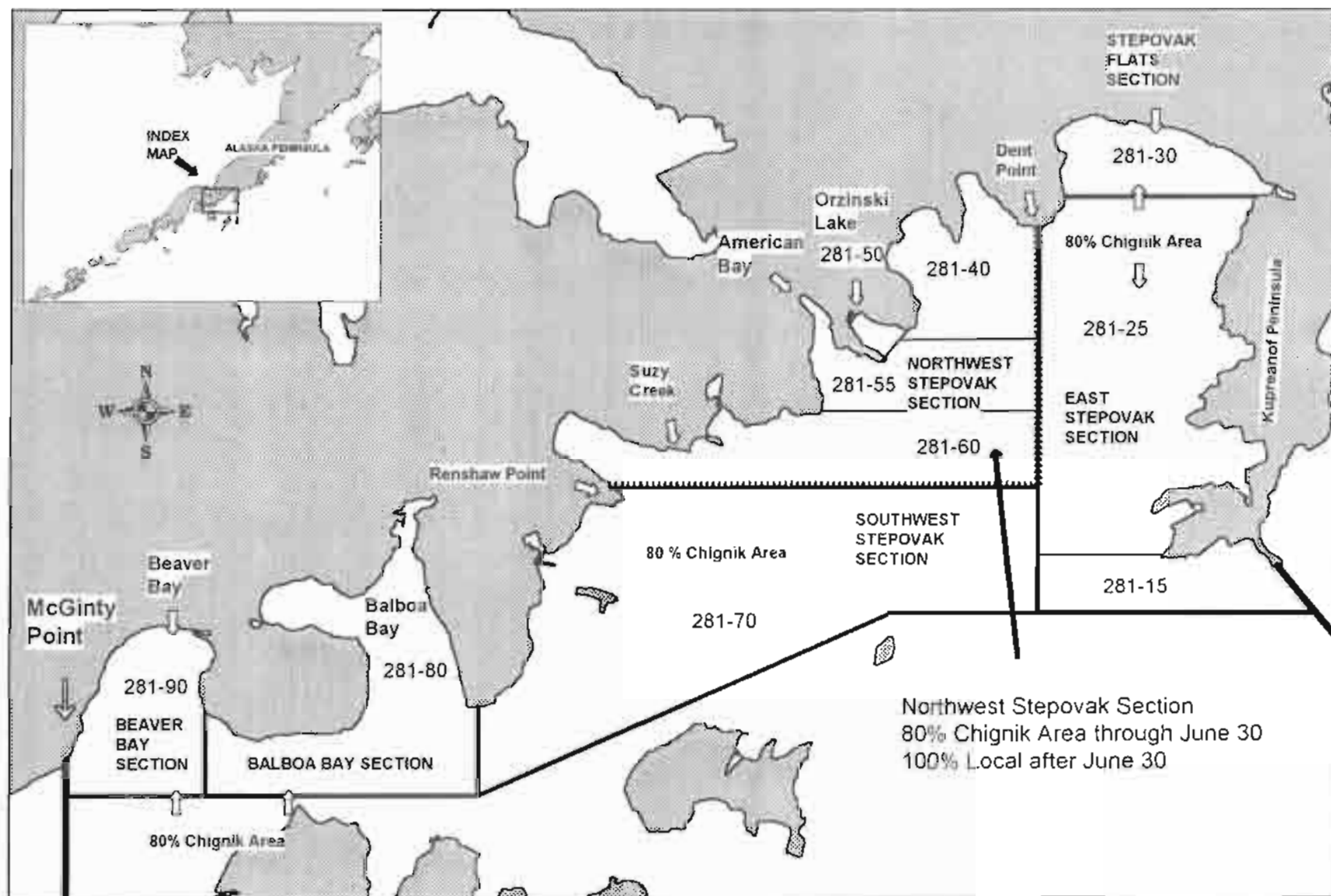


Figure 2. Map of the Southeastern District Mainland fishery from Kupreanof Point to McGinty Point with the salmon sections defined.

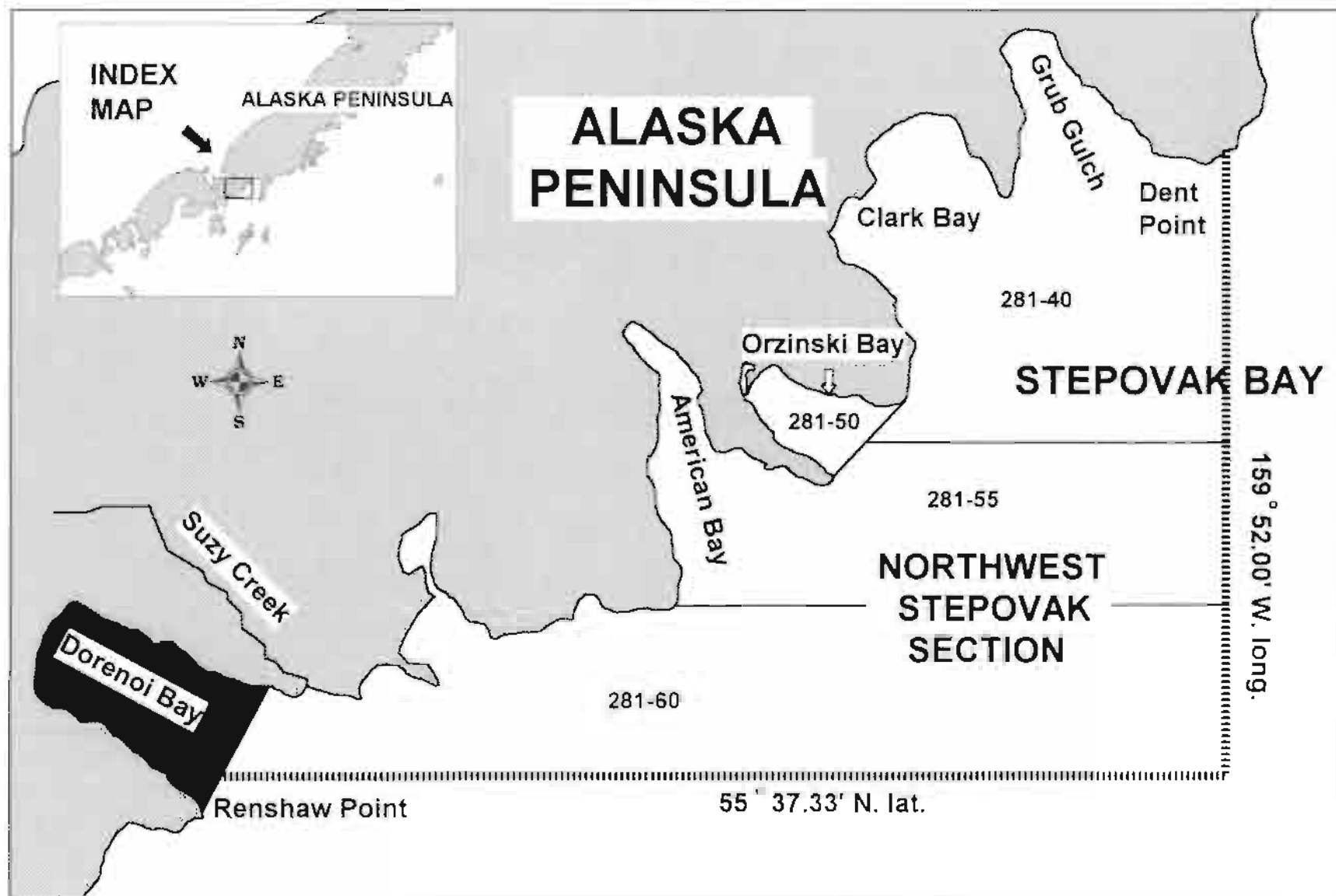


Figure 3: Map of the Northwest Stepovak Section, with Dorenoi Bay closed waters. through July 25, defined by darkened area.

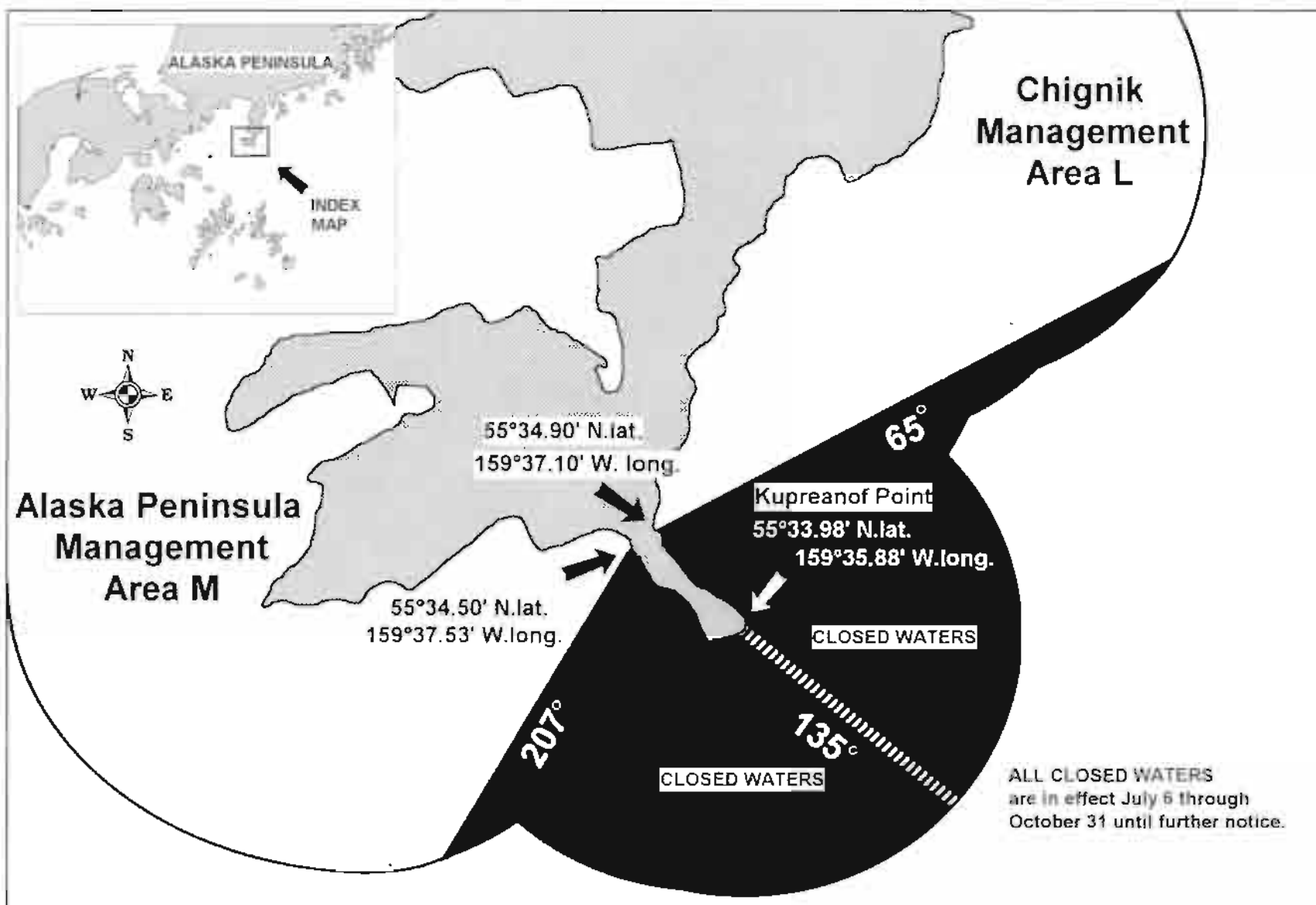


Figure 4. Map of Kupreanof Point area with closed waters defined

APPENDIX

APPENDIX A: SOUTHEASTERN DISTRICT MAINLAND SALMON MANAGEMENT PLAN

5 AAC 09.360. SOUTHEASTERN DISTRICT MAINLAND SALMON MANAGEMENT PLAN

(a) This plan pertains to the management of the interception of Chignik River sockeye salmon caught in the Southeastern District Mainland fishery: East Stepovak, Stepovak Flats, Northwest Stepovak, Southwest Stepovak, Balboa Bay, and Beaver Bay Sections. Before July 11, only set gill net gear may be used in these sections. For the purpose of this plan, local runs include only those salmon in the waters:

- 1) beginning July 1, in the Northwest Stepovak Section described 5 AAC 09.200(f):
- 2) the Stepovak Flats Section as described in 5 AAC 09.200(f).

(b) In years when a harvestable surplus for the first (Black Lake) and second (Chignik Lake) runs of Chignik River system sockeye salmon is expected to be less than 600,000, no commercial salmon fishery is allowed in the East Stepovak, Southwest Stepovak, Balboa Bay, and Beaver Bay Sections, and in the Northwest Stepovak Section, as described in 5 AAC 09.200(f) excluding Orzinski Bay of the Northwest Stepovak Section north of a line from Elephant Point at 55°41.92' N. lat., 160°03.2' W. long., to Waterfall Point at 55°43.18' N. lat., 160°01.13' W. long., until a harvest of 300,000 sockeye salmon is achieved in the Chignik Area, as described in 5 AAC 15.100. After July 8, if at least 300,000 sockeye salmon have been harvested in the Chignik Area, and if escapement goals are being met, the department shall manage the fishery so that the number of sockeye salmon harvested in the Chignik Area will be at least 600,000 and the number of sockeye salmon harvested in the East Stepovak, Stepovak Flats, Southwest Stepovak, Balboa Bay, and Beaver Bay Sections and before July 1 in the Northwest Stepovak Section, approaches as near as possible six percent of the total Chignik sockeye salmon catch.

(c) In years when a harvestable surplus beyond escapement goals for the first and second runs of Chignik River system sockeye salmon is expected to be more than 600,000 but the first run fails to develop as predicted and it is determined that a total sockeye salmon harvest in the Chignik Area of 600,000 or more may not be achieved, the commercial salmon fishery in the East Stepovak, Stepovak Flats, Southwest Stepovak, Balboa Bay, and Beaver Bay Sections and in the Northwest Stepovak Section,), excluding Orzinski Bay of the Northwest Stepovak Section north of a line from Elephant Point at 55°41.92' N. lat., 160°03.20' W. long., to Waterfall Point at 55°43.18' N. lat., 160°01.13' W. long., shall be curtailed in order to allow a harvest in the Chignik Area of 300,000 sockeye salmon through July 8 if that number of fish are determined to be surplus to the escapement goals of the Chignik River system. After July 8, if at least 300,000 sockeye salmon have been harvested in the Chignik Area, and if escapement goals are being met, the department shall manage the fishery so that the number of sockeye salmon harvested in the Chignik Area is at least 600,000 and the number of sockeye salmon harvested in the East Stepovak, Stepovak Flats, Southwest Stepovak, Balboa Bay, and Beaver Bay Sections and before July 1 in the Northwest Stepovak Section, approaches as near as possible six percent of the total Chignik sockeye salmon catch.

-Continued-

APPENDIX A: (page 2 of 2)

(d) In years when a harvestable surplus beyond the escapement goals for the first and second runs of Chignik River system sockeye salmon is expected to be more than 600,000 and the department determines that the runs are as strong as expected, the department shall manage the fishery so that the number of sockeye salmon taken in the East Stepovak, Stepovak Flats, Southwest Stepovak, Balboa Bay, and Beaver Bay Sections and before July 1 in the Northwest Stepovak Section, approaches as near as possible six percent of the total Chignik sockeye salmon catch.

(e) The fishing schedule in the Northwest Stepovak Section, excluding the waters of Orzinski Bay located north of a line from Elephant Point at 55°41.92' N. lat., 160°03.20' W. long., to Waterfall Point at 55°43.18' N. lat., 160°01.13' W. long., will not exceed four days during a seven day period. The maximum number of consecutive fishing days is two.

(f) The estimate of sockeye salmon destined for the Chignik River has been determined to be 80 percent of the sockeye salmon harvested in the East Stepovak, Stepovak Flats, Southwest Stepovak, Balboa Bay, and Beaver Bay Sections and before July 1 in the Northwest Stepovak Section. The sockeye salmon taken in the Northwest Stepovak Section beginning July 1 are considered to be 100% destined for Orzinski Bay.

(g) The total Chignik sockeye salmon catch constitutes those sockeye salmon caught within the Chignik Area, plus 80 percent of the sockeye salmon caught in the East Stepovak, Stepovak Flats, Southwest Stepovak, Balboa Bay, and Beaver Bay Sections, and before July 1 in the Northwest Stepovak Section, as described in 5 AAC 09.200(f), plus 80 percent of the sockeye salmon caught in the Cape Igvak Section of the Kodiak Area. The percentage of Chignik sockeye salmon may be permitted to fluctuate above or below six percent at any time before July 25.

(h) This allocation method is in effect through July 25. The first fishing period of the commercial salmon fishing season in the East Stepovak, Southwest Stepovak, Balboa Bay, and Beaver Bay Sections and before July 1 in the Northwest Stepovak Section, may not occur before the first fishing period of the commercial salmon fishing season in the Chignik Area. After July 25, commercial salmon fishing in the entire Southeastern District Mainland area may be allowed on local stocks.

(i) During the period from approximately June 26 through July 8, the strength of the second run of the Chignik River system sockeye salmon cannot be evaluated. In order to prevent over-harvest of the second run, the department may disallow or severely restrict commercial salmon fishing in the East Stepovak, Stepovak Flats, Southwest Stepovak, Balboa Bay, and Beaver Bay Sections during this period, and from June 26 through June 30 in the Northwest Stepovak Section

(j) The department shall announce all commercial salmon fishing periods by emergency order. The department shall give at least 24 hour notice before the first opening of the season. After the season opening, the advance notice will be 12-hours, unless it is an extension of a fishing period in progress.

APPENDIX B: CHIGNIK MANAGEMENT AREA PRELIMINARY SOCKEYE FORECAST

FORECAST AREA: Chignik Management Area

SPECIES: Sockeye salmon

PRELIMINARY FORECAST OF THE 1998 RUN:

	Forecast Estimate	Forecast Range
TOTAL PRODUCTION:		
<i>Early Run (Black Lake)</i>		
Total Run	900,000	250,000
Escapement	400,000	-1,650,000
Commercial Common Property Harvest	500,000	
<i>Late Run (Chignik Lake)</i>		
Total Run	1,100,000	550,000
Escapement	250,000	-2,650,000
Commercial Common Property Harvest	850,000	
<i>Total Chignik Run</i>		
Total Run	2,000,000	800,000
Escapement	650,000	-4,300,000
Commercial Common Property Harvest	1,350,000	

FORECAST METHODS

Black Lake

The preseason forecast to Black Lake was generated with a multiple regression model employing numbers and length of the prior year's age-1.2 sockeye salmon (1966-97) and the current year numbers age 1.3 and 2.3 fish combined ($r^2=0.73$). Cross validation was completed using freshwater age specific smolt to adult survival estimates from 1997 returns applied to 1995 smolt population estimates. The estimates closely mirrored one another, however only one year of smolt survival data was available. All other age class estimates are based on recent 10-year average returns.

Chignik Lake

The Chignik Lake forecast is based primarily on 1995 age-2. Smolt outmigration numbers coupled with smolt to adult survival based on returns from 1997. Two methods were used and contrasted for estimation of the run; method 1 used the product of age-2. Smolt numbers from 1995 divided by 1994 numbers, then multiplied by 1997 adult run numbers; the second approach used the estimate of age 1.3 Black Lake run for 1998 multiplied by the ratio of age-1. To age 2. Smolt to adult survival. This assumes most age-1. Sockeye are of Black Lake origin while age-2. Are from Chignik Lake. Accuracy of the 1998 projection is unknown owing to only a single smolt to adult survival data point.

-Continued-

DISCUSSION OF THE 1998 FORECAST

Early Run: The 1998 Black Lake sockeye salmon run is expected to be 900,000 fish which is approximately 400,000 fish less than the 1988-97 average run of 1,300,000 fish. Contributing factors for this low projection is the return of 48,000 age-1.2 sockeye during the 1997 season, the lowest return since 1989 (37,000) which anticipated the 1990 run at about 1,000,000 sockeye salmon. Recently, the 1996 return of 52,000 age-1.2 sockeye salmon anticipated the return of approximately 700,000 fish in 1997. Only 12 times from 1966 to the present, and only twice since 1989 has the return of age-1.2 sockeye been between 30,000 and 100,000 salmon. Only one of the returns within this range resulted in an above average run. Additionally, the 1995 age- 1. smolt outmigration (2,600,000 smolt) was weaker than that of 1994 (7,00,000 smolt) which resulted in a poor return of age-1.3 fish in 1997. Confidence in the forecast is fair. We remain uncertain as to forecast accuracy owing to the overall poor performance of the 1997 preseason forecasts regionwide.

Late Run: Both methods estimated the 1998 Chignik Lake sockeye run to be 1,100,000 salmon, which is approximately 200,000 fish less than the 1988-97 average run of 1,300,000 sockeye salmon. For the 6-year-olds (age 2.3) which typically dominate the run, the parent year (1992) escapement is 405,922, with a resultant return per spawner value of 4.4. In recent years, when one of the runs dominates it appears to suppress the other. However, neither run is expected to overwhelm the other, but return at below average levels. The methods employed for this forecast remain untested, therefore a fair amount of uncertainty exists.

Prepared By:
David Owen
Area Management Biologist
Chignik Area ADF&G

Charles O. Swanton
Regional Research Biologist
Kodiak

APPENDIX C: APPLICATION OF FISHERY MANAGEMENT PLANS

5 AAC 39.200 APPLICATION OF FISHERY MANAGEMENT PLANS

(a) The Board of Fisheries has implemented by regulation fishery management plans that provide the Department of Fish and Game with guidelines to be followed when making management decisions regarding the state's subsistence, commercial, sport and personal use fisheries. The primary goal of these management plans is to protect the sustained yield of the state's fishery resources while at the same time providing an equitable distribution of the available harvest between various users. The regulations contained in this section are intended to aid in the achievement of that goal and therefore will apply to all fishery management plans contained in 5 AAC 03-5 AAC 39.

(b) In some fishery management plans, the distribution of harvestable fish between various users is determined by the harvest that occurs during a specific time period, at a specific location, or by a specific group or groups of users. At times fishermen, due to circumstances that are beyond the control of the department, such as weather or price disputes, will not harvest fish. When this happens in a fishery governed by a management plan, the goals of the plan may not be achieved. Therefore, when a fishery is open to the taking of fish and the group or groups of users whose catch determines the distribution of the harvest as set out in the applicable management plan are not taking the harvestable fish available to them, the department shall manage the fishery as if the available harvest is being taken. When determining the available harvest, the department shall consider the number of fish needed to meet spawning requirements, the number of fish present in the fishery and in spawning areas that are in excess to spawning requirements, and the estimated harvesting capacity of the group or groups of users that would normally participate in the fishery.

The Alaska Department of Fish and Game administers all programs and activities free from discrimination on the basis of sex, color, race, religion, national origin, age, marital status, pregnancy, parenthood, or disability. For information on alternative formats available for this and other department publications, contact the department ADA Coordinator at (voice) 907-465-4120, or (TDD) 907-465-3646. Any person who believes s/he has been discriminated against should write to: ADF&G, PO Box 25526, Juneau, AK 99802-5526; or O.E.O., U.S. Department of the Interior, Washington, DC 20240.